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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,785	10/19/2001	Kunimitsu Aoki	011415	6974

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EXAMINER

MENGISTU, AMARE

ART UNIT PAPER NUMBER

2673

DATE MAILED: 05/19/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,785

Applicant(s)

AOKI ET AL.

Examiner

Amare Mengistu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Oikawa et al (5,504,622)** in view of **Baker et al (6,186,648)** and **Fukui Takuomi et al (JP 4-283790A)**.

As to claims 1 and 2, **Oikawa et al** (hereinafter **Oikawa**) clearly teaches HUD device by which an image displayed on a windshield of a vehicle and a virtual image of the image projected on the windshield (fig.8) comprising: a correction member (fig.8 (18)), disposed between the windshield (fig.8 (2)) and the display source (fig.8 (4)), for transmitting a light of the image (fig.8 (P1, P2)) there through so as to correct the image to be projected on the windshield so that distortion of the image, which is seen from the eye point (fig.8 (10)), col.4, lines 65- col.5, line 1, lines 37-40); wherein the correction member is formed by extracting a specific portion, which can cancel out the distortion of an image (col.4, lines 65- col.5, line 1, col.5, lines 55-60) .

Oikawa teaches a correction member is parabolic optical reflective face (fig.8 (18)); please note: optical could be a lens), but has failed to teach the curvature is a single radius to extract a specific portion. However; the patent of **Baker et al**

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(hereinafter **Baker**) clearly teaches that for optical reflector to have a single radius curvature is well known (col.7, lines 20-24, 29-37, col.11, lines 32-33).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to substitute **Oikawa** correction member with **Baker's** a single radius curvature reflector, because this will increase the concentrating power of the optical system and enhancing the collectable radiant flux at the specific target portion.

Oikawa as modified by **Baker** discloses a parabolic optical correction member with a single radius curvature. **Oikawa** has failed to disclose that the correction member is a spherical lens. **Fukui Takuomi et al (hereinafter Takuomi)** clearly states that it is well known for a head up display to have a correction member with a spherical lens (6) (see, CONSTITUTION).

Therefore, it would have been obvious to one skill in the art at the time of the invitation was made to substitute **Oikawa** parabolic correction member with **Takuomi's** spherical correction member since this is an alternative method of making a correction member lens.

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamamura** (5,013,135) in view of **Baker et al (6,186,648)** and **Fukui Takuomi et al (JP 4-283790A)**.

As to claims 1 and 2, **Yamamura** clearly teaches HUD device by which an image displayed on a windshield of a vehicle and a virtual image of the image projected on the

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windshield (see, Abstract; figs.1, 3,6) comprising: a correction member (figs.1, 3,6 (3)), disposed between the windshield (figs.6 (19,23)) and the display source (fig.1 (2)), for transmitting a light of the image there through so as to correct the image to be projected on the windshield so that distortion of the image, which is seen from the eye point (fig.1,3,6, col.2, lines 48- col.3, lines 10, col.4, lines 49-65, col.8, lines 1-4).

Yamamura teaches a correction member is parabolic optical reflective face (figs. 1,3,6 (3)), but has failed to teach the curvature is a single radius to extract a specific portion. However; the patent of **Baker et al** (hereinafter **Baker**) clearly teaches that for optical reflector to have a single radius curvature is well known (col.7, lines 20-24, 29-37, col.11, lines 32-33).

Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to have been motivated to substitute **Yamamura** correction member with **Baker's** a single radius curvature reflector, because this will increase the concentrating power of the optical system and enhancing the collectable radiant flux at the specific target portion.

Yamamura as modified by **Baker** discloses a parabolic optical correction member with a single radius curvature. **Yamamura** has failed to disclose that the correction member is a spherical lens. **Fukui Takuomi et al** (hereinafter **Takuomi**) clearly states that it is well known for a head up display to have a correction member with a spherical lens (6) (see, CONSTITUTION).

Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to substitute **Yamamura parabolic** correction member with

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Takuomi's spherical correction member since this is an alternative method of making a correction member lens.

Response to Arguments

4. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amare Mengistu whose telephone number is (703) 305-4880. The examiner can normally be reached on M-F, T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.


Amare Mengistu
Primary Examiner
Art Unit 2673

A.M

May 15, 2004